From: John Lindquist
Sent: Friday, October 17, 2003 8:59 AM
To: Dabbs, Paul
Subject: Comments on Draft CA Water Plan, 2003

Dear Mr. Dabbs;

Please consider the following comments regarding the Draft California
Water Plan for 2003:

1) Chapter 5, Desalination, Major issues, Cost and affordability: It should be noted that energy costs in California are volatile. If energy costs increase due to increased demand by desalination plants (or any other reason) the cost for desalinated water could increase substantially. Because desalination requires more energy per unit than most (all?) other sources of water supply, desalinated water cost would increase disproportionately.

2) Chapter 5, Desalination, Major issues, Energy use: Energy use and related environmental impacts (air and water pollution, for example) will likely always be greater for desalination than for groundwater withdrawals or surface water use/transfers, even in the ideal case where a suitable source of seawater or brackish water is available at approximately the same elevation as the water users. In cases where the seawater must be pumped uphill a substantial elevation to water users, either before or after desalination, energy consumption will be even more out of proportion relative to groundwater or surface water supplies obtained from mountain rivers and reservoirs.

3) Chapter 5, Urban water use efficiency, Major issues: A paragraph should be added to discuss "Growth-inducing impacts," similar to the discussion of major issues in the "Desalination" section. Obviously, water conservation results in lower per capita water use, which has resulted in approval of additional suburban development in many Southwest communities where water supply is a concern. In fact, the second page of the draft Water Plan Update introduction discusses at some length how conservation is expected to be a major contributor of water to accomodate future population growth in California.

4) Chapter 5, Urban water use efficiency, Major issues: A paragraph should be added to discuss impacts on wastewater quantity and quality. Most of the water used for municipal/urban purposes in California does not disappear into thin air (evaporate) after being used. Instead, it flows to wastewater treatment plants, where it is treated and reused directly for landscaping, recharged to groundwater and eventually used again, or provides replacement riparian areas where natural flows have been impacted by development. Increased urban water conservation could have the two following negative impacts on water supply. First, urban conservation would decrease the amount of reclaimed water available for reuse, recharge, and environmental mitigation. Second, using less water to flush toilets or wash clothes, for example, increases the concentrations of dissolved constituents and suspended solids in wastewater, making the water less desirable for reuse and difficult to treat in wastewater treatment plants.

Regards,

John C. Lindquist
Registered Geologist #7076 (CA), #28708 (AZ)
Certified Hydrogeologist #756 (CA)